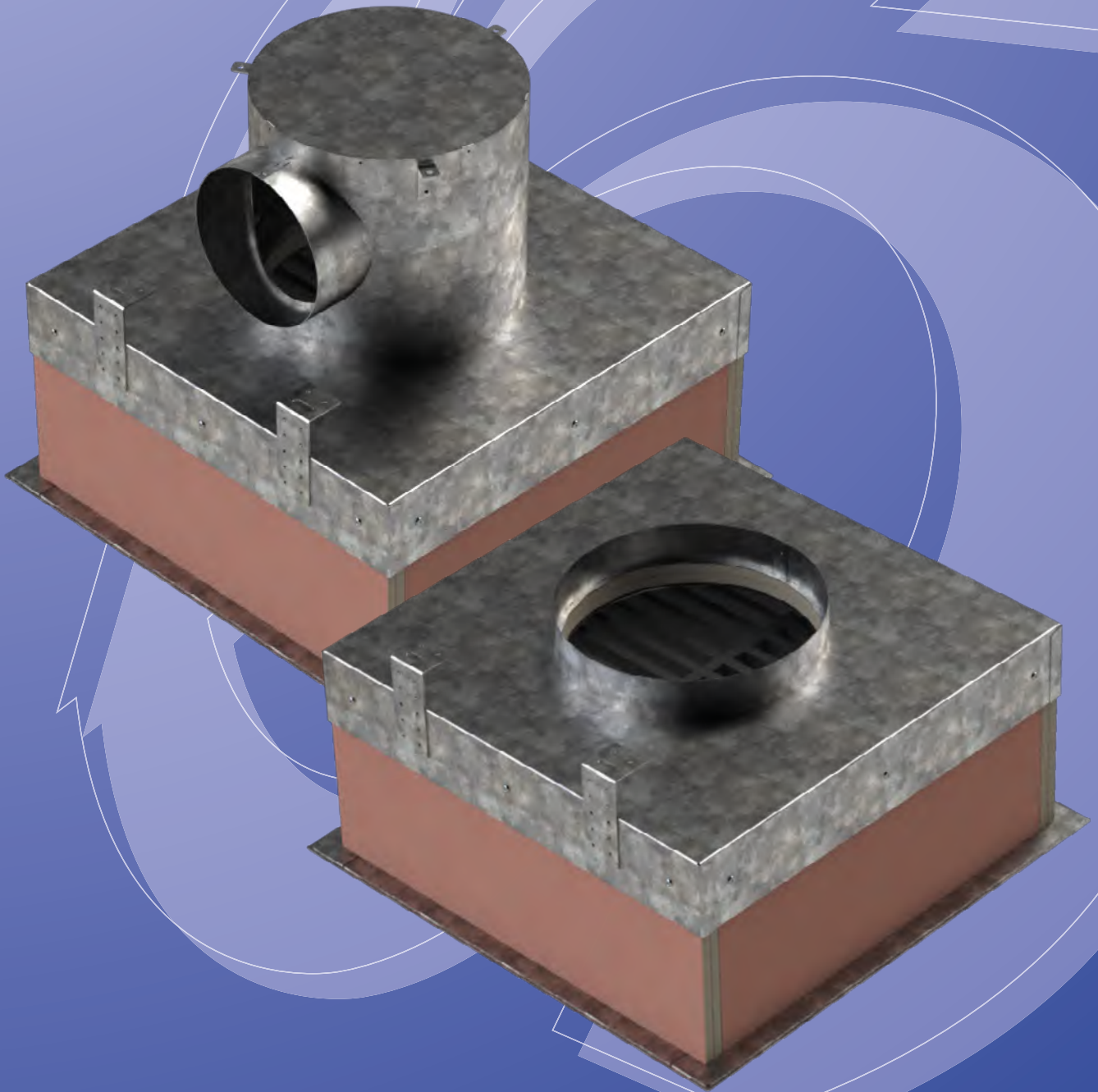


SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

MARCH 2026



Features

- Fire Tested to EN 1363-1 [see fig 1].
- 60 min Integrity Rating.
- 60 min Thermal Rating.
- Tested to EN 1366-3:2021.
- Tested up to 600mm x 600mm Structural Opening.

SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

Introduction

Gilberts' FR/TCB and FR/SEB series are a range of purpose-made plenum/connection boxes designed to maintain fire integrity in fire rated ceiling and wall systems and can be used with a variety of grille and diffuser types.

The FR/TCB and FR/SEB range has been tested in a plasterboard and concrete ceiling [horizontal] and in a plasterboard wall [vertical]. It achieves a 1 hour thermal and integrity fire rating in accordance with EN1366-3:2021.

The range is supplied with a reinforced intumescent fire block complete with fire rated cladding and internal thermal breaks. The only additional site work required is intumescent mastic to the structural opening during installation and duct wrap applied to incoming ductwork above, or SEB if used.

Depending on the selected grille/diffuser fitment can be either face fixed or by a concealed bracket arrangement which allows easy removal for inspection and maintenance. All boxes are complete with brackets to fix directly to a concrete floor or alternatively can be suspended via 8mm drop rod support.

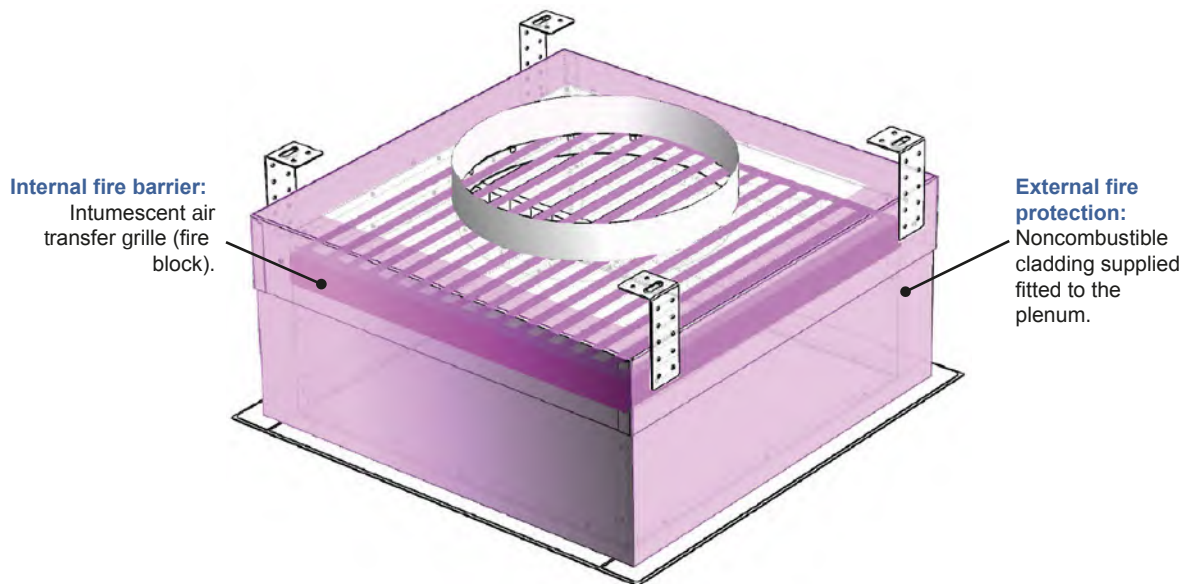
Determination of fire resistance based on:

EN1366-3 2021 Plenum box set in a concrete floor ref 2024-Efectis-R000309.

EN1366-3 2021 Plenum box set in a plasterboard ceiling ref 2024-Efectis-R000320.

EN1366-3 2021 Plenum box set in a plasterboard wall ref 2024-Efectis-R000348.

Product Illustrations



Product Features

- Fire tested to EN 1363-1 [see fig 1].
- 60 min integrity rating.
- 60 min thermal rating.
- Tested to EN 1366-3:2021.
- Tested up to 600mm x 600mm structural opening.

Fire test report available upon request to Gilberts' technical dept. Note, final product sign-off required by a qualified fire officer.

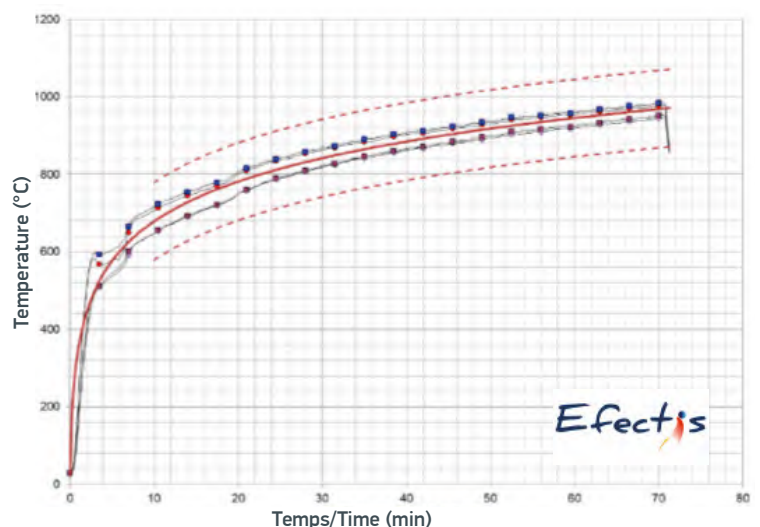


Fig 1: Furnace time/temperature graph showing fire test curve in accordance with EN1366-3:2021, detailed in EN 1363-1.

SERIES FR/TCB - FR/SEB

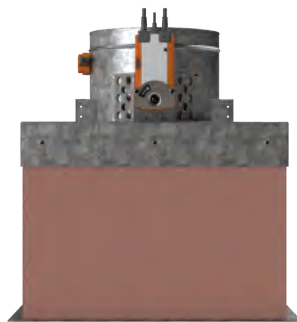
Fire Rated Connection Box

Additional Features

Our Fire Rated Connection box can also be offered with a CE marked motorised ES rated smoke*fire damper for additional smoke control purposes.

Note 1. Incoming ductwork and fire damper to be wrapped in 40mm Rockwool Ductwork [by others, not shown for clarity].

Note 2. Overall box height increases to 452mm with this option.



Front View



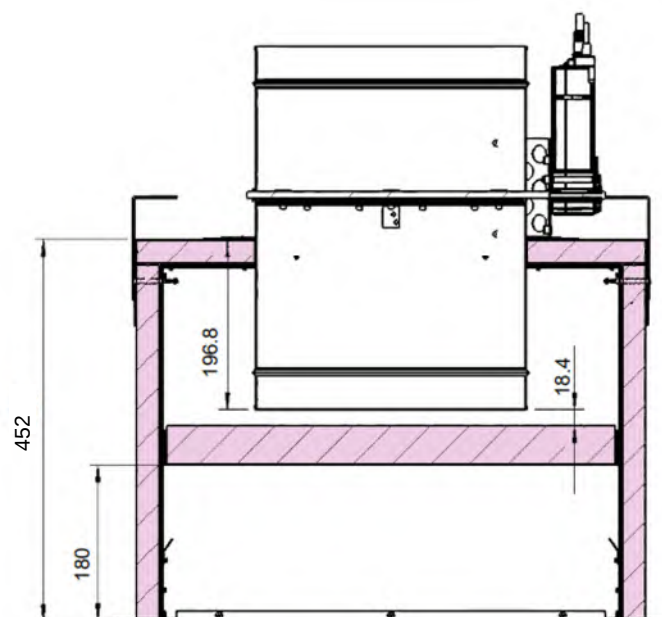
Side View

Gilberts have tested this arrangement and can provide a test report on request.

Test conducted to EN1366-3:2001 with report number 2023-Efectis-R000196.

Assessment will be required to ensure suitability prior to design or purchase.

This combined arrangement completed over 60 Minutes within the standard requirements for both integrity and insulation.



SERIES FR/TCB-FR/SEB

Fire Rated Connection Box

Compatible Grilles and Diffusers

SERIES GPS4/GPP4
Security grilles



SERIES L/LG/LR
Fineline and broadline linear strip grilles



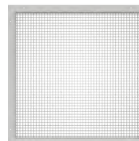
SERIES G
Adjustable deflection grilles



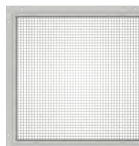
SERIES GC
Curved blade grilles



SERIES GE
Eggcrate grilles



SERIES GECA-RC
Removable core eggcrate grilles



SERIES H
Heavy duty adjustable deflection grilles



SERIES K
Fixed blade grilles



SERIES SK
Heavy duty steel fixed blade grilles



SERIES DGA-4
Louvred face ceiling diffuser



SERIES GSFB
Square fixed swirl diffuser



SERIES GDSA
Square fixed swirl diffuser



SERIES GB-A
Adjustable slot swirl diffuser



SERIES MN-A
High induction multi nozzle diffuser



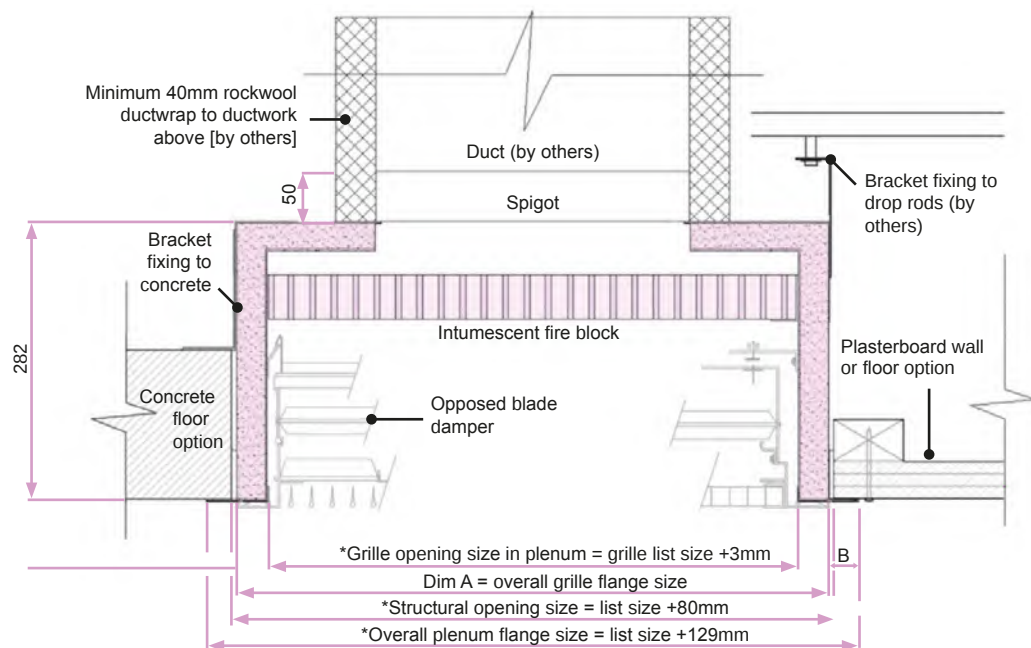
SERIES PG
Perforated face diffuser



SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

FR Plenum for Gilberts Grilles



*Except GECA-RC = grille opening size/structural, opening/plenum, overall flange size are all as above +20mm.

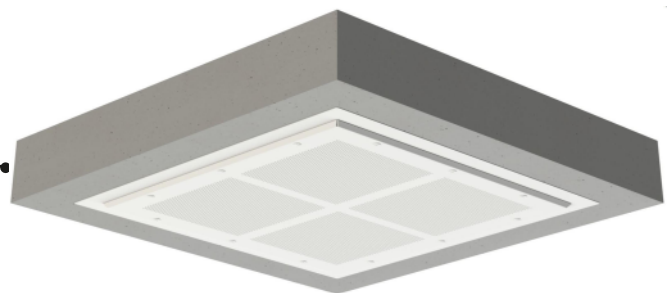
GRILLE TYPE	DIM A OVERFLANGE GRILLE SIZE	DIM B VISIBLE PLENUM FLANGE
GPS4/GPP4	LIST SIZE +60	34.5mm
L/LG/LR	LIST SIZE +45	42mm
SERIES G	LIST SIZE +45	42mm
SERIES GC	LIST SIZE +45	42mm
SERIES GE	LIST SIZE +45	42mm
GECA-RC	LIST SIZE +72	38.5mm
SERIES H	LIST SIZE +45	42mm
SERIES K	LIST SIZE +45	42mm
SERIES SK	LIST SIZE +81	24mm

Grilles available up to 520mm x 520mm list size [500 x 500 for GECA-RC], which equates to 600mm x 600mm structural opening. For GP1 grilles speak to our technical dept. [specific installation tests already completed].

Please see page 4 for product images.

Fig 2

All FR plenum connection boxes are supplied fitted with a plenum flange trim which is to be specified in same finish as grille. [See ordering specification]. The plenum flange trim sits behind the grille and is a visible feature of the grille facade.

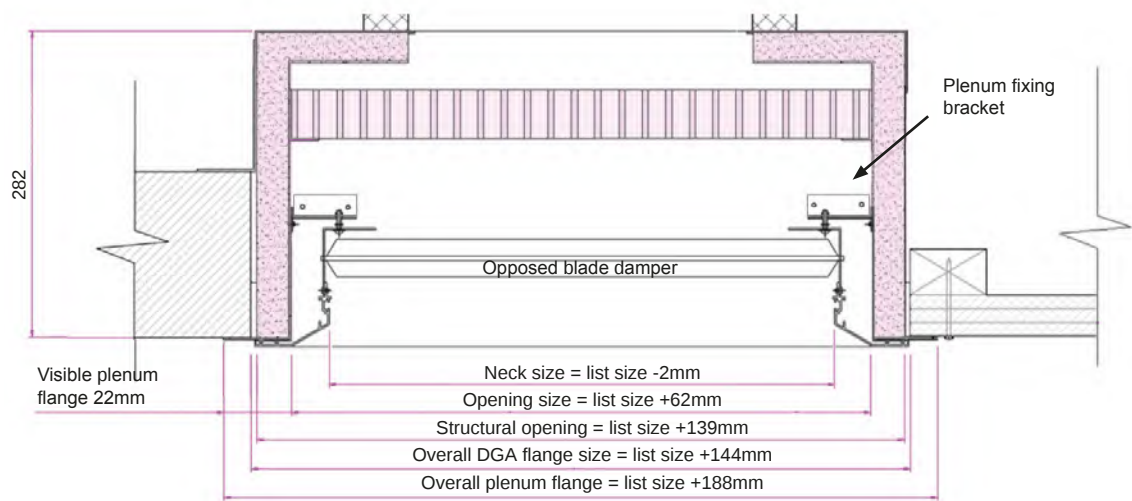


SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

FR Plenum for DGA-4 Diffusers

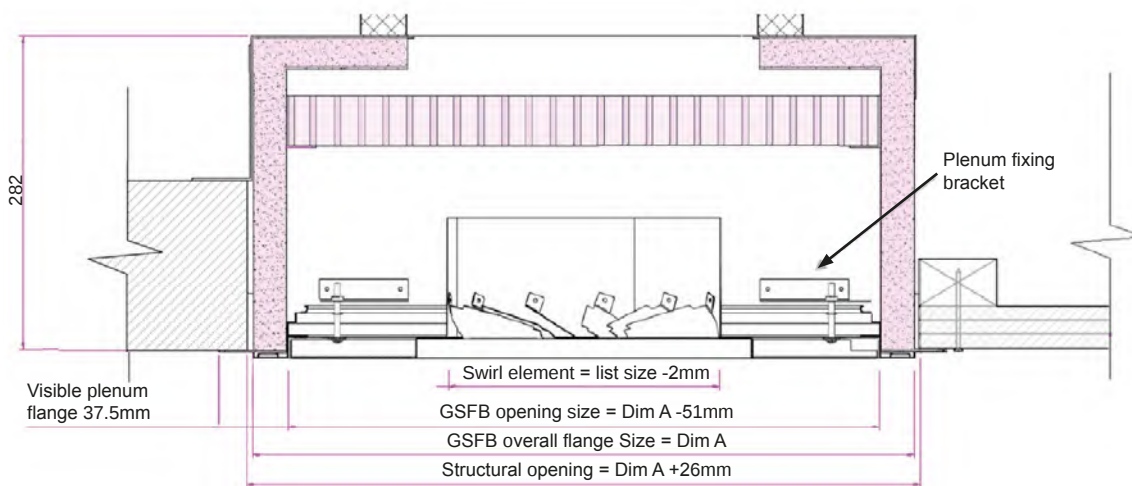
See page 4 for product image.



Note - list size is from 150 x 150 in 75mm increments up to 450 x 450 list.

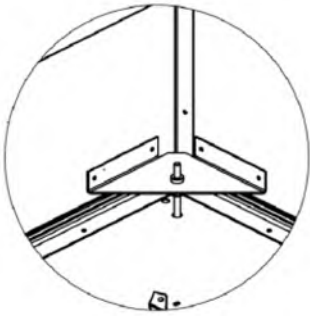
FR Plenum for GSFB Diffusers

See page 4 for product image.



LIST SIZE	DIM A: Overall flange size
160	300 574
250	574
315	574
450	574

Note – available up to 574 face size max, these are standard flanges and no teg frame available.



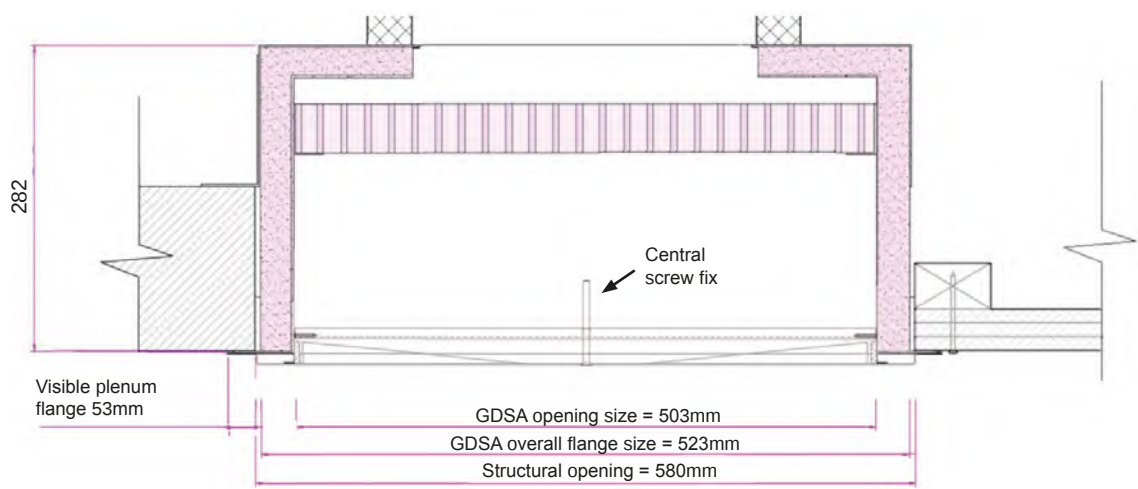
Plenum fixing
bracket detail

SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

FR Plenum for GDSA Diffusers

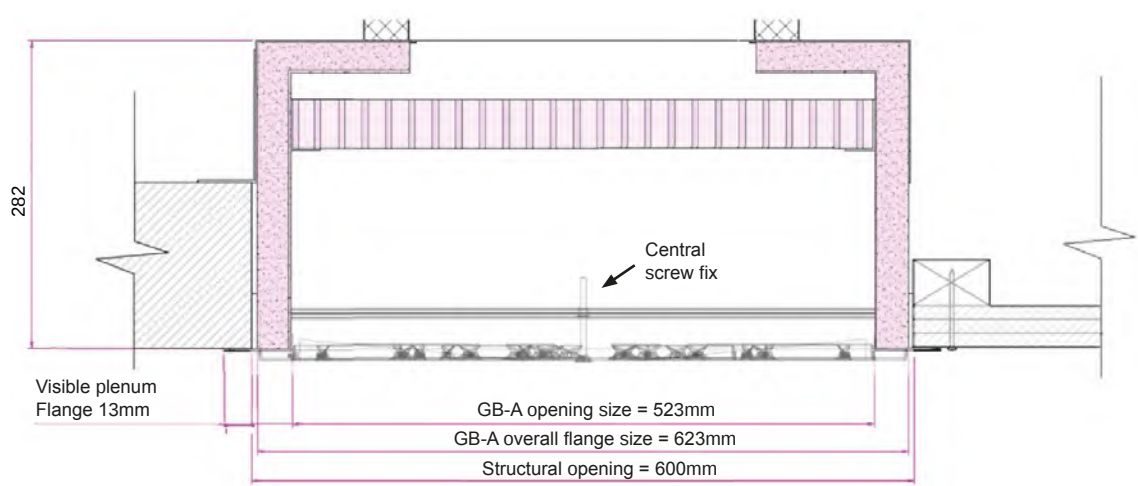
See page 4 for product image.



List sizes 250, 315 and 500 available.

FR Plenum for GB-A Diffusers

See page 4 for product image.



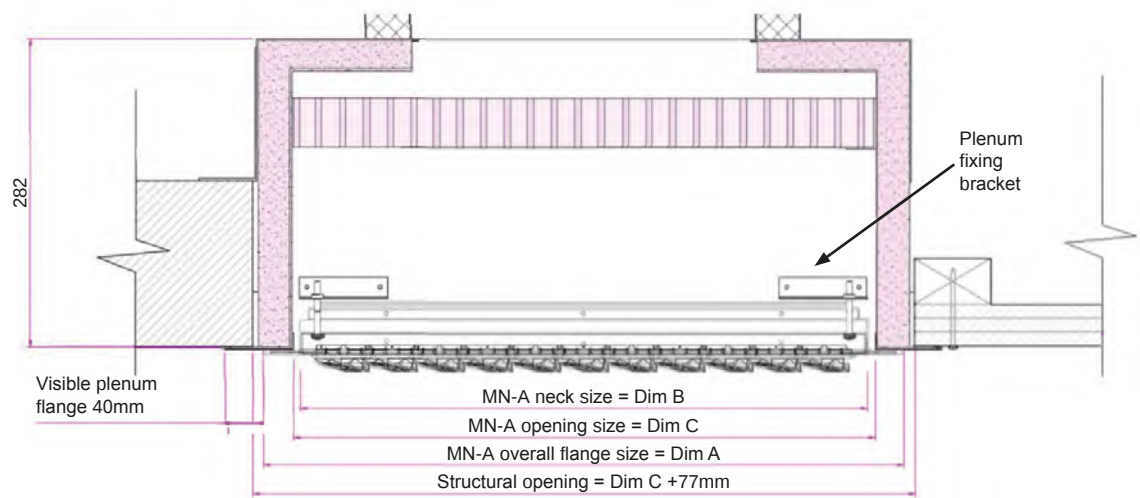
List sizes 250, 315, 500 and 600 available.

SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

FR Plenum for MN-A Diffusers

See page 4 for product image.

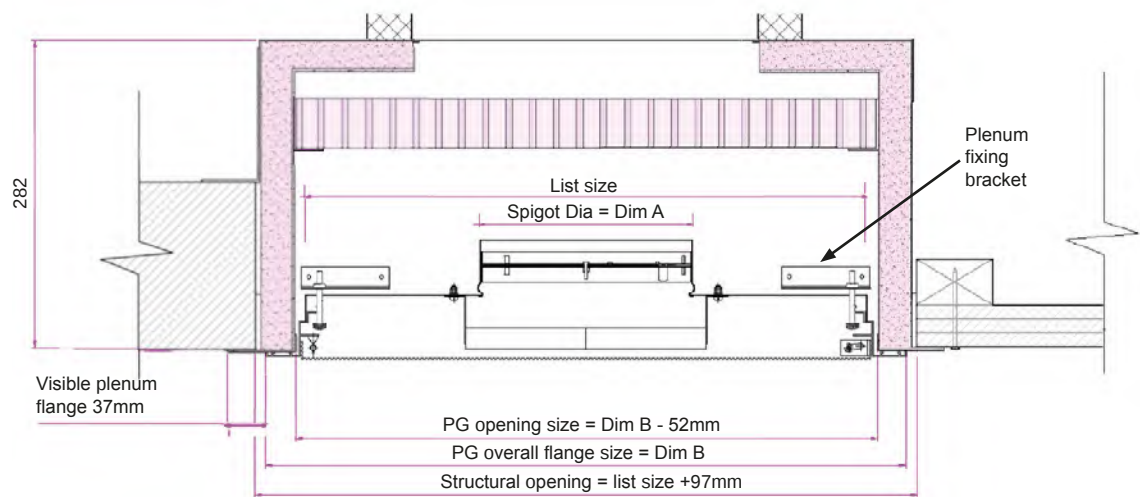


LIST SIZE	DIM A	DIM B	DIM C
300	364	304	318
400	464	404	418
500	564	504	518

Note – available up to 500 list size only.

FR Plenum for PG Diffusers

See page 4 for product image.



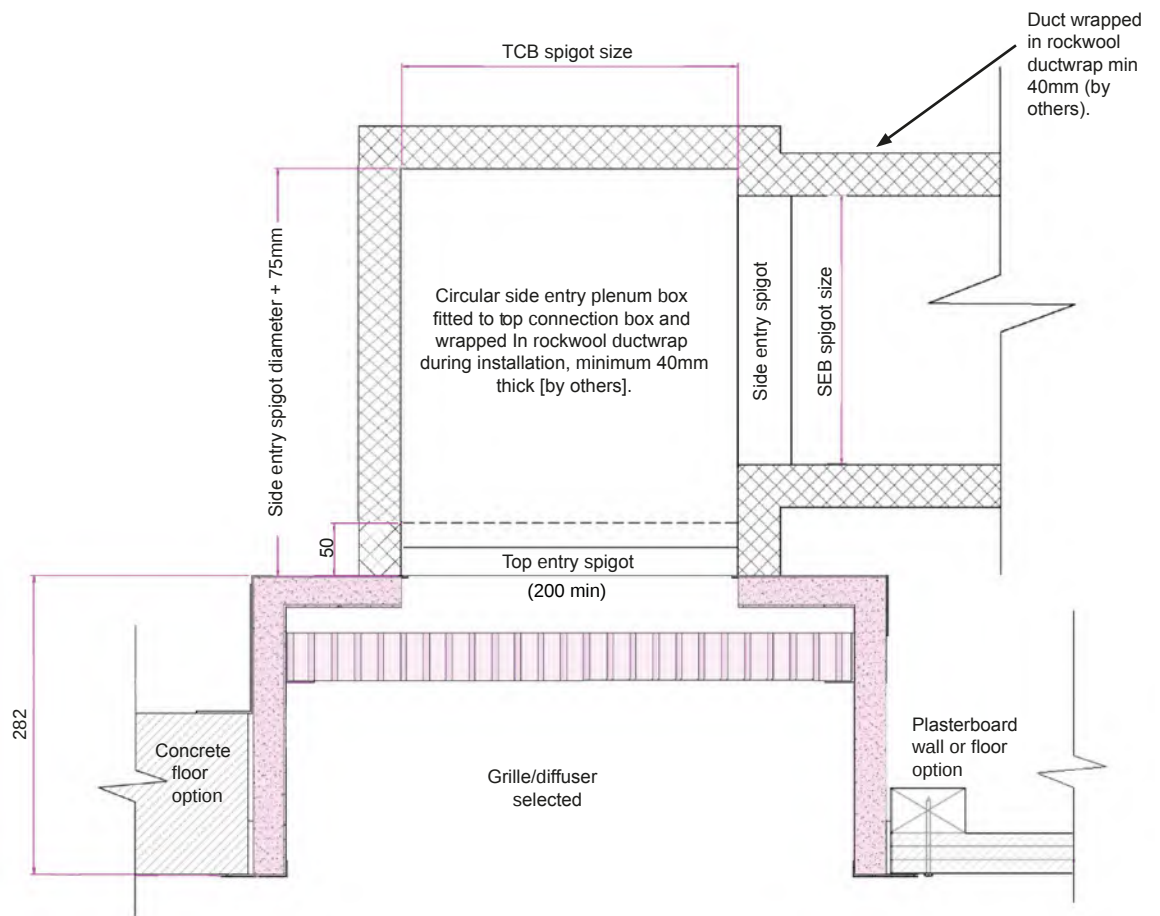
LIST SIZE	DIM A (Spigot Size)	DIM B
227 x 227	160	299 x 299
327 x 327	160 200	399 x 399
422 x 422	160 200 250	494 x 494
427 x 427	160 200 250	499 x 499

Note – available up to 427 x 427 list size only.

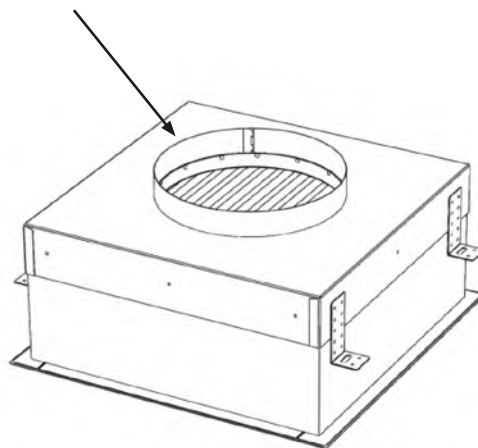
SERIES FR/TCB - FR/SEB

Fire Rated Connection Box

Type SEB-C Side Entry



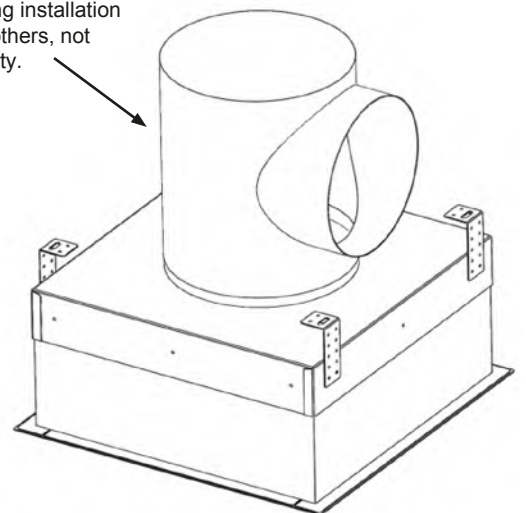
Incoming duct fitted to top entry box must be wrapped in 40mm rockwool ductwrap for compliance [by others, not shown for clarity].



Top Entry Box Isometric View

Shown with inverted hanging brackets in floor fix orientation to secure to concrete floor. [supplied loose].

Side entry plenum box and incoming ductwork must be wrapped in 40mm rockwool ductwrap during installation [ductwrap by others, not shown for clarity].



Side Entry Box Isometric View

Shown with hanging brackets inverted to receive drop rods to structure above if ceiling mounted.

SERIES FR/TCB-FR/SEB

Fire Rated Connection Box

Ordering Specification

Product Identifier FR/TCB Top Connection Box FR/SEB Side Connection Box	FR/ SEB	DGA/4	-	DO	450 x 450	-	SS350	SS200	PPC RAL 9010 20% GLOSS
Grille/Diffuser Type Product specified e.g DG									
Supply Spigot Size 160, 200, 250, 315 (PG only)									
Grille/Diffuser Options DO - Damper									
List Size or (Overall Diffuser Size note as overall) Width x Length									
Air Pattern 1, 2, 2E, 3, 4, MD (Pg Only)									
TCB Spigot Size SS + Size (note: TCB Spigot always required even with SEB)									
SEB Spigot Size (if required) SS + Size (leave blank if not applicable)									
Finish of Plenum Cover Flange To match selected Grille, Diffuser or other if preferred									

All grilles and diffusers for fire rated boxes pre-fix with FR i.e FR/DGA/4 450 x 450 etc.

Max spigot size to be 350mm. All spigots to be circular.

GILBERTS

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